DOCUMENT RESUME

ED 480 306 CE 085 363

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TITLE	Potential Performance Indicators for Youth Programs Funded by the Workforce Investment Act of 1998.
INSTITUTION	Ohio State Univ., Columbus. Center on Education and Training for Employment.
SPONS AGENCY	Ohio State Dept. of Education, Columbus. Div. of Career-Technical and Adult Education.
PUB DATE	2001-09-00
NOTE	65p.
PUB TYPE	Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC03 Plus Postage.
DESCRIPTORS	Career Choice; Career Planning; Compliance (Legal); Disadvantaged Youth; Economically Disadvantaged; Education Work Relationship; *Evaluation Criteria; Federal Legislation; Formative Evaluation; Interpersonal Competence; Material Development; Performance; Postsecondary Education; Program Evaluation; *Program Improvement; *Research Utilization; Secondary Education; *Specifications; Work Ethic; *Youth Programs
IDENTIFIERS	*Ohio; *Performance Indicators; Workforce Investment Act 1998

ABSTRACT

The Workforce Investment Act 1998 (WIA) made major changes in programs for youth from economically disadvantaged families. It mandated program performance indicators. A study examined the new performance indicators and determined whether they were adequate or should be supplemented with involvement of stakeholders concerned about youth programs. In 9 of 12 Ohio School-to-Work (STW) regions, 108 stakeholders took part in 10 focus groups and discussed what indicators, beyond those mandated, should be used to evaluate youth programs. Content analysis of discussions yielded four potential performance indicators that would supplement, if adopted, those that legislation mandated. The indicators are that program completers can articulate career goals and plans for achieving them; demonstrate the ability to work well with others; manage their personal lives effectively; and demonstrate a good work ethic. Only 24 of 108 participants completed rankings of the indicators. Survey questionnaires circulated to 47 providers asked whether they collected data on the indicators and, if not, their preference for how it should be collected; 9 providers responded. The low response rates indicated data use for program improvement is not a high priority for providers. To increase awareness and understanding of potential contributions of performance data, an introductory guide to data collection and use was prepared and circulated to providers. (The guide is appended.) (YLB)

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POTENTIAL PERFORMANCE INDICATORS FOR YOUTH PROGRAMS

FUNDED BY THE

WORKFORCE INVESTMENT ACT OF 1998

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FUNDED BY THE

WORKFORCE INVESTMENT ACT OF 1998

Morgan V. Lewis
Susan Resch

Prepared for

Ohio Department of Education
Career-Technical and Adult Education

Prepared by

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September 2001

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Foreword

The Center on Education and Training for Employment is pleased to present this report on potential indicators for youth programs funded by the Workforce Investment Act of 1998. This report was produced by one component of a broad, multi-university initiative, the State University Education Deans School-to-Work Systems Integration Coalition that was funded by the Ohio Department of Education. Ms. Kristen Cox Howard was the project officer for the Coalition.

Prior to her retirement from The Ohio State University, Ms. Sandra Pritz provided coordination for the Coalition and co-directed the project that produced this report. After her retirement, the co-project director, Dr. Morgan Lewis, and Ms. Susan Resch completed the project activities and prepared this report. The activities of the Systems Integration Coalition were guided by an advisory board with representatives of all major groups concerning with transition from education to employment. Three members of this board served as facilitators for focus groups conducted for this project: David Booth, Qetler Jensrud, and Otto Meyer.

The staff has asked me express their appreciation to all who contributed to the project, especially the 108 individuals who took part in the focus groups. These participants were from across Ohio and all are involved in programs for youth. School-to-Work and Tech Prep coordinators and staff members of Full Service Centers identified potential participants and assisted in arranging the sessions. The discussions in the focus groups produced the basic data from which the indicators proposed in this report were developed.

I also wish to recognize the contributions to this report of these program providers: Ms. Joann Davis, Director Village to Child Program, Ohio Dominican College, Columbus, Ohio; Ms. Sally Murphy, Head of Youth Outreach, and Ms. Sarah Narendorf, Head of Transitional Living Program, Huckleberry House, Columbus, Ohio: and Ms. Kathryn Meyers, Director Marketing and Development, Salesian Boys' and Girls' Club of Columbus.

On behalf of all of us at Ohio State, I express our sincere appreciation to those whose concern and dedication to young people motivated them to cooperate in the research presented in this report. It is our hope that the results will be helpful to all providers of youth services.

W. Michael Sherman
Interim Executive Director
Center on Education and Training
for Employment
College of Education

Executive Summary

The Workforce Investment Act (WIA) of 1998, which became effective July 1, 2000, made major changes in programs directed to youth from economically disadvantaged families. Under the prior legislation, youth programs primarily provided summer employment opportunities, often supplemented with an educational component. Under WIA these programs are required to offer a comprehensive array of services year around, continuously from the time young people enroll until they complete or withdraw from their programs. Together with these new programming requirements, indicators of program performance are also mandated.

In October 1999, in anticipation of these changes, the Ohio School-to-Work Office asked, the Center on Education and Training for Employment to examine the new performance indicators and determine if they were adequate or should be supplemented. The examination was conducted with the involvement of a broad array of stakeholders concerned about youth programs. This involvement took the form of focus groups, surveys, and the development of a guide to the use of data for program improvement.

Focus groups were held in nine of the 12 state School-to-Work (STW) regions. The groups were convened with the assistance of the STW Coordinators, the Tech Prep Coordinators of consortia most aligned with the regions, and staff of the Full-Service Centers in the regions. A total of 108 stakeholders took part in 10 focus groups. (One regions had two groups because of the number who responded to the invitation to participate.)

The Nominal Group Technique was used in these focus groups to discuss this question:

> What additional indicators, beyond those mandated by the WIA, should be used to evaluate youth programs?

Content analysis of the discussion in these groups yielded the following four potential indicators of program performance. If these indicators were adopted, they would supplement those mandated by the legislation:

1. Program completers can articulate career goals and plans for achieving them that are based on a realistic assessment of their interest, abilities, and the resources available to them.

2. Program completers demonstrate the ability to work well with others.

3. Program completers manage their personal lives effectively, including budgeting, time management and accessing resources needed to overcome barriers to education and employment.

4. Program completers demonstrate a good work ethic including punctuality, regular attendance, and doing what needs to be done.

After these four indicators had been drafted, they were circulated to all who had participated in the groups, and they were asked to rank all that they thought should be used for program evaluation from 1, their highest rank, to 4, their lowest. Only 24 of the 108 participants completed the rankings, but 23 of the 24 ranked all four. In other words, all but one of the focus group participants who returned rankings thought that all four indicators should be used for program evaluation. The work ethic indicator, number 4 in the list above, was the highest ranking, receiving a mean of 1.54. This was over a full point lower than the next lowest mean of 2.65 for the indicator on career planning.

The next step in the project was a survey of providers of youth program in the Central Ohio area. Questionnaires listing the four indicators developed from the focus groups were circulated to 47 providers. The questionnaires asked if the providers currently collected data on these indicators, and if they did not their preference for how it should be collected. The response to the survey was very low. Only nine providers returned the questionnaire, and of these, only four reported they currently collect data related to any of the indicators. Attempts were made to conduct interviews with the four providers who collect the relevant data, but only two agreed to the interviews.

The low response rate to the survey and the two interviews that were conducted led to the conclusion that, at present, use of data for program improvement is not a high priority for providers of youth services. To increase awareness and understanding of the potential contributions of performance data, an introductory guide to data collection and use was prepared and circulated to the same providers who had been surveyed.

The providers were asked if they would be willing to review the guide and provide suggestions for its improvement. One provider responded to this request and reported that she found the guide to be very helpful. She suggested topics in the guide that should receive additional emphasis, and these suggestions were incorporated. The guide is presented in the Appendix of the report.

INTRODUCTION

For the past several years, the College of Education of The Ohio State University has provided coordination for the School-to-Work Systems Integration Coalition. This coalition was a collaborative effort of the State University Education Deans, the Board of Regents, and the Department of Education. It was developed to encourage broad participation from all state teacher education institutions in school-to-work initiatives.

In October 1999, the Ohio School-to-Work (STW) Office asked Ohio State, as part of its coalition activities, to examine the performance indicators that would be applied to youth programs funded under the Workforce Investment Act (WIA) of 1998. This act, which replaced the Job Training Partnership Act (JTPA), was passed in August 1998. To allow time for transition to the new provisions, it did not become effective until July 1, 2000.

The examination of the performance indicators was conducted through focus groups and surveys of individuals concerned about youth programs. Focus groups were conducted across the state with individuals who were convened through the assistance of STW Coordinators, Tech Prep Consortium Coordinators, and staff from the Full-Service Centers of the Office of Career-Technical and Adult Education, Ohio Department of Education. A follow-up survey was conducted with participants from these groups. Another survey was conducted with providers of youth programs in Central Ohio and attempts were made to conduct follow-up interviews with providers. Finally, a guide to the use of data to improve programs was prepared and circulated to youth providers in Central Ohio for comment.

This report describes each of these activities and the results they produced. It is organized in the order in which the activities were carried out:

- Statewide focus groups
- Survey of focus group participants
- Survey and interviews with Central Ohio providers of youth programs
- Guide to use of data for program improvement

Before discussing these activities, a brief overview of the Workforce Investment Act (WIA) is presented.

Workforce Investment Act

WIA made major changes in the requirements for youth programs. Under JTPA, these programs consisted primarily of summer employment for young people from low-income families. Classroom activities were sometimes

provided, but these were secondary to employment. Under WIA, youth programs still focus on disadvantaged youth, but those who are enrolled must participate during the entire year and have access to the following program elements:

- Tutoring, study skills and instruction
- Alternative secondary school services
- Summer employment
- Work experience
- Occupational skill training
- Leadership development
- Supportive services
- Adult mentoring
- Follow-up services
- Guidance and counseling

WIA does not require that all enrollees receive all of these services, but programs must have ways of making all of them available to those enrollees who need them. An individualized plan must be developed for each enrollee that sets at least three measurable goals. The program elements from this list of 10 that will contribute to the attainment of an enrollee's goals are to be included in each plan.

Young people in the age range of 14 to 21 can be enrolled. Those who are 19 to 21 years of age can be served either as youth or adults. If they are in youth programs, they can receive the services listed above, but they are not eligible for individualized training accounts. Young people 14 through 18 years of age are eligible only for youth programs. WIA specifies three broad categories of core indicators by which youth programs are to be evaluated:

1. Attainment of basic skills as appropriate, work readiness and occupational skills
2. Attainment of secondary school diplomas and their recognized equivalents
3. Placement and retention in post secondary education or advanced training, or placement and retention in military service, employment or qualified apprenticeship

State and local workforce investment boards are established under WIA to provide policy guidance to the implementation of the act. These boards have the option of adopting additional indicators for use in evaluating the programs they fund. The School-to-Work Office asked Ohio State to conduct a study to determine if those involved in youth programs across the state saw a need for additional indicators, and if they did, what those indicators should be.

FOCUS GROUPS

The focus groups for this project were conducted during the last four months of transition from JTPA to WIA, March through June of 2000. In Ohio, this transition was taking place while the Ohio Bureau of Employment Services was being merged with the Ohio Department of Human Services into a new department, the Ohio Department of Job and Family Services. Many of the local agencies that had responsibility for administration of JTPA were eliminated and their functions assumed by the county Departments of Job and Family Services.

Because of the state-level merger and the reorganizations at the local level, the Youth Councils that are required by the WIA and charged to advise state and local workforce investment boards had not been appointed when the focus groups were conducted. The question that arose, therefore, was whom to call upon as representatives of youth programs. A decision was made to request assistance in convening focus groups from three sources: the School-to-Work (STW) Coordinators in the 12 regions, the Tech Prep Coordinators whose consortiums were most congruent with these regions, and the Full-Service Centers in the regions.

Requests for cooperation were sent to all 12 regions and focus groups were conducted in 9 of the 12. Because of the number who responded to the invitation to take part in the focus groups, two groups were conducted in Dayton. The number that responded in Lima was also large enough for two groups, but the facility in which the group met could only accommodate one large group. Table 1 indicates the dates, locations, and number participating in each of the focus groups and Table 2 presents the characteristics of these participants.

Table 1. Focus Groups Participation by Date and Location

Date	Region	Location	Participants
March 14	8	Cleveland	7
March 21	7	Piketon	12
March 28	2	Toledo	11
April 4	3	Lima	17
April 4	4A	Dayton	13
April 4	4B	Dayton	9
April 5	6	Mansfield	12
April 12	1	Columbus	12
June 6	10	New Philadelphia	8
June 22	11	Athens	7

Note: All dates are in the year 2000.

Table 2. Demographic Characteristics of Focus Group Participants

Characteristic	Percentage
Race/Ethnicity	
White	79
African-American	9
Other	3
No answer	9
Gender	
Female	44
Male	47
No answer	9
Age	
35 or younger	8
36 to 45	19
45 to 55	46
56 or older	17
No answer	9
Base Number	108

The focus groups were conducted using the Nominal Group Technique (Delbecq and others 1975). This is a structured method of generating and prioritizing options for addressing a specified issue. The issue that these groups were asked to consider was the following:

> What additional indicators, beyond those mandated by the WIA, should be used to evaluate youth programs?

Prior to the discussion, the information sheet on youth indicators reproduced as Exhibit 1 was distributed to the participants. After a brief explanation of the method, the participants were asked to take a few quiet minutes to think of additional indicators. Each participant was then asked to suggest an indicator for listing on a flip chart. The listing was done in round-robin fashion until no additional indicators were suggested. One of the project staff either facilitated the groups or acted as recorder.

After all indicators were listed, the group had the opportunity to review and cluster similar indicators. In most cases, this process resulted in a large number of indicators, 30 to 40, being reduced to a smaller number. This clustering often yielded a somewhat disjointed aggregation of similar, but far from identical concepts. The participants were then asked to select from those remaining indicators, some of which were clusters, the five they most preferred and to rank those five with number 1 being their most preferred.

Exhibit 1. Summary of Workforce Investment Act Performance Indicators for Youth Programs

Core Indicators of Performance: (WIA Sec. 136(b)(2)(A))

For providers serving youth ages 19-21:

1. Eligible youth who enter postsecondary education, advanced training, or unsubsidized employment.
2. Eligible youth who enter an activity listed in indicator 1 who received a credential by the end of the third quarter after exit.

For providers serving youth ages 14-18:

1. Attainment of basic skills as appropriate, work readiness and occupational skills.
2. Attainment of secondary school diplomas and their recognized equivalents.
3. Placement and retention in post secondary education or advanced training, or placement and retention in military service, employment or qualified apprenticeship.

Customer Service Indicators:

The customer satisfaction indicator of performance shall consist of customer satisfaction of employers and participants with services received from the workforce investment activities authorized. Customer (employer and participants) satisfaction may be measured by surveys conducted at the conclusion of participation in the workforce investment activities. The American Customer Satisfaction Index (ratings on 3 scales from 1 to 10) has been adopted for the core measure.

Additional Indicators:

The State may identify in the State plan additional indicators for workforce investment activities. Local boards may adopt indicators beyond those required by the state.

Target Population Groups:

Youth must be ages 14-21, low income, and meet at least one of these six specific barriers to employment:

1. Deficient in basic literacy skills.
2. A school dropout.
3. Homeless, a runaway, or a foster child.
4. Pregnant or a parent.
5. An offender.
6. An individual who requires additional assistance to complete an educational program, or to secure and hold employment.

Five percent may be non-low income if they have specified barriers to school completion or employment. At least 30 percent of the funds must be spent on out- of-school youth.

Youth Councils:

Youth Councils will be established as a subgroup of the local board to develop parts of the local plan relating to youth, recommend providers of youth services, and coordinate youth programs and initiatives.

Analysis of Focus Group Results

After all 10 focus groups had been conducted, it was necessary to compare the indicators that had been suggested and ranked by each. The method chosen for this comparison was content analysis using Ethnograph (Seidel, 1998), a program for personal computers that facilitates content analysis of text. The codes used for this analysis were developed from a review of the high-ranking indicators that emerged from each focus group. The highest rankings were those selected and ranked by a majority of each group. This criterion eliminated those indicators that had been selected by less than half of the group. Exhibit 2 presents the codes that were used for analyzing the high-ranking indicators.

Exhibit 2. Codes Used for Analysis of Potential Indicators

ACHIEVE: Achievement of a specified goal, may be nontraditional.

BASIC SKILLS: Basic academic, communication skills.

CAREER: Ability to plan and carry out career plans.

INTERPERSONAL: Ability to work well with others, team work.

OCCUPATION SPECIFIC: Occupationally specific skills, e.g., computer skills, defined competencies.

PERSONAL: Personal management skills, time management, budgeting, problem solving, anger management, conflict resolution

RESOURCES: Ability to access resources to deal with personal problems

RESPONSIBILITY: Work ethic, sense of responsibility, attendance, punctuality

The coding process sought to identify the underlying concepts in the indicators from each group, regardless of how these concepts were worded. It was noted above that as part of the focus group process, participants were able to review and cluster separate indicators. Here is an example of an indicator that emerged from one of the focus groups that clustered several separate indicators into one:

> Attendance, understanding of it and dependability. Good understanding of importance of developing a quality resume, job finding tools. Life skills, budgeting. Learn how to work as a team, people skills. The ability to understand and take direction. Time management schedule skills, living by a schedule. Anger management skills. Principles of honesty and integrity. Good grooming, proper attire or uniform, showing up for work. Realization that there is no "free lunch," understanding limitations and

expectations. Dedication and work ethic. Talking through problems at work with supervisors. Managing money, finances.

This indicator was selected by 10 of the 12 participants in this group and received the highest average ranking, 1.7, on a scale of 1 to 5. The indicator received such a strong endorsement because it included several references to desirable outcomes of youth programs. Here is how this indicator was coded:

The coding yielded five separate references that were coded *responsibility*:

- Attendance, understanding of it and dependability
- Good grooming, proper attire or uniform, showing up for work.
- Principles of honesty and integrity
- Realization that there is no "free lunch",
- Dedication and work ethic.

Four that were coded *personal*:

- Life skills, budgeting
- Time management schedule skills, living by a schedule.
- Anger management skills.
- Managing money, finances.

Three that were coded as *interpersonal*:

- Learn how to work as a team, people skills.
- The ability to understand and take direction
- Talking through problems at work with supervisors.

Two that were coded *career*:

- Good understanding of importance of developing a quality resume, job finding tools
- Understanding limitations and expectations.

This indicator is a rather extreme example of clustering. Most indicators did not have so many separate concepts included.

For nine of the ten focus groups, two analysts coded the indicators independently, and the codes they assigned were compared. The indicators from one group were used for training purposes to develop consistency in the manner in which the two analysts assigned the codes. For the nine that were coded independently, there was 85 percent agreement in the codes they assigned. This is equivalent to a reliability coefficient of $r = .92$. The codes on which there was initial disagreement were discussed and agreement reached. Exhibit 3 presents the wording from each of the indicators that was grouped by the coding system presented in Exhibit 2. The group producing the wording is identified by region (R). The two groups conducted in Region 4 are labeled A and B.

Exhibit 3. Coding of Basic Concepts Reflected in Indicators by Regions in Which the Focus Groups Were Conducted

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ACHIEVE: Achievement of a specified goal, may be nontraditional.

R1: Increase in self-esteem.
R2 High school diploma or equivalent for ages 19-21.
R3: More non-traditional alternatives, educational opportunities, realistic approach to achieve graduation or equivalent.
- Meaningful recognition of steps of achievement; how to achieve to next level of proficiency; celebration of accomplishment.
R4A Experience successful work-based learning.
- Driver's license.
R10: Obtain a valid driver's license.
R11 Stay with 3 listed, [indicators in the WIA] measure academics by state proficiency tests.
- Continuation in a program that will lead to a high school diploma or equivalent after age 18.
- Completion of structured program designed to increase feelings of accomplishment, self-esteem, success.

BASIC SKILLS: Basic academic, communication skills

R1: Include strong math, science and reading skills.
R2: Reading, writing, mathematical skills at specified grade level.
R4A: High School completion standards, high school diploma, math, English classes, GED, 9th grade proficiency exams passed.
R4B: Ability to read and write.
- Socially acceptable communication skills in a business environment.
R6: Basic computer literacy/keyboard skills, basic communication skills; communicate with others, core skills in reading, writing, math.
R7: Improved proficiency, reading, writing, math, comprehension, science, improved writing and learning comprehension skills.
R8: Demonstrate ability to read, comprehend, and apply knowledge. Respond intelligently to questions.

R10 Communication skills: Able to communicate professionally both written and orally. Have telephone etiquette. Ability to ask relevant question. Listen well.
- Basic Skills: Has ability to read and write basic English. Can perform basic math skills. Shows citizenship skills. Ability to follow directions/orders. Understands technology fundamentals. Has basic keyboarding skills. Develops basic literacy skills, Takes advantage of lifelong learning, Understands free enterprise system.
R11: Stay with 3 listed, [indicators in the WIA] measure academics by state proficiency tests.

Exhibit 3. Coding of Basic Concept, Continued

CAREER: Ability to plan and carry out career plans.

R1: Good understanding of importance of developing a quality resume, job finding tools.

R4A: Increased knowledge of career awareness and employer expectations. Ability to set goals.
No "free lunch", understanding limitations and expectations.

R4B: Career competency attainment, career awareness, job-ready. Realistic awareness and expectations of career field. Student doing realistic self-assessment; able to match with real jobs.
– Have a career plan, first step and long term, See at a first step of a career path with future growth and learning, Get away from the concept of working for money's sake, but outcomes of staying with program and training in the long term.
– Career exploration.

R7: Clear career goals and plan to achieve increased awareness of one's personality, learning styles, interpersonal interaction.

R8: Completed a jobs workshop. Fill out a job application. Basic writing skills (e.g., can write cover letter, thank you note). Understanding of job opportunities, market, related jobs. Demonstrate proper job interview techniques. Appropriate telephone skills, call those they don't know. Develop a resume. Occupational skills to advance. Appropriate dress. Awareness of SCANS competencies. Look up/research something.
– Ability/willingness for lifelong learning. Ability to network,
– Identify a career focus and an educational plan to reach the goal.

R10: Articulate personal goals.
– Exhibit interviewing skills. Can indicate their skill level correctly to employers. Be familiar with area of employment being sought.

INTERPERSONAL: Ability to work well with others, team work.

R1: Learn how to work as a team, people skills. The ability to understand and take direction.
– Talking through problems at work with supervisors.
– Not being afraid to ask questions. Initiative, willingness to learn and ask questions.

R3: Ability to get along with others.

R4A: Skills in anger management, conflict resolution and peace keeping. Able to function as a part of a group/team.

R4B: Interpersonal skills, able to work in teams, peer expectations, Ability to work in groups, not just peer groups, but adults, Awareness of peer employee expectations, Ability to work successfully in a diverse work force.

Exhibit 3. Coding of Basic Concept, Continued

R6: Communicate with others, team skills.
- Social skills; get along with others, Cultural/gender diversity awareness and sensitivity.
- Followship and leadership.

R8: Ability to accept constructive criticism.
- Ability to work under authority. Ability to follow directions, written or verbal.

R10: Interpersonal skills, demonstrates the ability to get along with others. Able to accept others who are different than themselves. Clearly exhibit conflict management skills.
- Accept criticism, give and receive feedback.

R11: Employability work readiness. Working with coworkers, working with customers. Social skills-getting along with others/team player.

OCCUPATION SPECIFIC: Occupationally specific skills, e.g., computer skills, defined competencies.

R1: Basic computer and drafting skills.

R4A: 11th-12th grade technology skill training "marketplace dictates" Marketing skills. Evidence of a set of competencies in the occupational area beyond minimum wage.
- Suitable industry certification, readiness.

R10: Obtained specific vocational skills and can demonstrate those specific skills to an employer.

PERSONAL: Personal management skills, time management, budgeting, problem solving, anger management, conflict resolution

R1: Life skills, budgeting.
- Time management schedule skills, living by a schedule. Anger management skills. Principles of honesty and integrity.
- Managing money, finances.
- Problem solving.
- Increase resiliency factors.

R3: Independent living skills like budgeting and time management.

R4A: Cleanliness, personal habits.
- Drug free. Not becoming a parent. Avoidance of involvement with juvenile justice system.

R4B: Time management skills.
- Staying with the effort.

Exhibit 3. Coding of Basic Concept, Continued

R4B: Awareness/demonstration of employability skills, employer expectations.
– Awareness of what employer expects of a new employee. Be trustworthy.

R6: Work ethic, punctuality, grooming, responsibility of a personal nature, attendance. Follows directions/rules. Expectation that they can work with all others. Ability to work on their own without constant supervision. Dedication as an employee, commitment to the goals/objectives.
– Pride in quality work. Attitude that enables following through on tasks and working for others.

R7: Ethical behavior, including work ethic/character. Responsible/ reliability as worker.

R8: Exhibit work ethic.

R10: Exhibits work ethic.

R11: Shows up on time. Dresses appropriately, appropriate language.
– Review of youth work performance by employers.
– Stay with 3 listed [indicators in the WIA], measure academics by state proficiency tests.

It was noted in the Introduction that the WIA specifies three core indicators for youth programs serving the age range 14 to 18:

1. Attainment of basic skills as appropriate, work readiness and occupational skills.
2. Attainment of secondary school diplomas and their recognized equivalents.
3. Placement and retention in post secondary education or advanced training, or placement and retention in military service, employment or qualified apprenticeship.

The indicators that emerged from the focus groups can, for the most part, be classified within these three. If the *work readiness* skills in the first indicator are defined broadly, the focus groups primarily yielded further definition and examples of these skills. All of the skills classified as *career, interpersonal, personal, resources*, and *responsibility* contribute to work readiness. To provide further specificity as to just what *work readiness* involves, four potential additional indicators could be added to the three mandated in the legislation. The indicators listed in Exhibit 4 can be considered as providing further specificity to the core indicators.

The other basic concepts that emerged from the focus groups directly reflect the three core indicators. The *achieve* concept is inherent in the goal setting that is part of the development of the individualized plan for each enrollee. Programs are to be evaluated on the extent to which all of their enrollees achieve the goals set forth in their individualized plans. *Basic* and *occupational skills* are specifically addressed in the first core indicator.

Exhibit 3. Coding of Basic Concept, Continued

R6: Life management skills, balance of work with other aspects/roles in life. Attention to balance of physical, mental, spiritual aspects of life, a belief system of a spiritual nature.
- Problem solving skills.
- Management of personal life so that job impact is positive; can work through problems.
- Ability to accept criticism, build on it. Self-esteem, self-assessment and evaluation skills.
- Experiences in management of selves.
- Adaptability, expectation of multiple jobs/roles and ability to cope.

R7: Practice healthy life style (wellness). Reduction in alcohol/drug usage.
- Demonstrated respect for other workers, types of work.

R8: Demonstrate life skills. Respond intelligently to questions. Creative. Money management skills.
- Problems solving (without direction).

R10: Exhibit time management skills. Cleanliness. Able to problem solve in all environments.
- Successful life skills. Be drug free. Developed effective parenting skills. Be economically literate. Be in good standing with the justice system.

RESOURCES: Ability to access resources to deal with personal problems

R4A: Nurturing relationships and mentoring.

R6: Resource awareness. Review barriers to employment-related education (transportation, housing, day care, clothing). Identify barriers to success and resources for addressing this. Access to community resources.

R10: Have child care established. Access clean, affordable, reliable housing. Establish their own personal support system and network.
- Accepts referral to special needs providers for Work Adjustment and Sheltered Employment.

RESPONSIBILITY: Work ethic, sense of responsibility, attendance, punctuality

R1: Attendance, understanding of it and dependability.
- Proper attire or uniform, showing up for work.
- Dedication and work ethic.
- Do they do things they see need to be done?

R3: Need to understand work ethics, reliability, attitude.

R4A: Employability skills. Reduced absenteeism.
- Punctuality.

Exhibit 4. Potential Additional Indicators of Youth Program Performance

Program completers can articulate career goals and plans for achieving them that are based on a realistic assessment of their interest, abilities, and the resources available to them.
Program completers demonstrate the ability to work well with others.
Program completers manage their personal lives effectively, including budgeting, time management and accessing resources needed to overcome barriers to education and employment.
Program completers demonstrate a good work ethic including punctuality, regular attendance, and doing what needs to be done.

SURVEY OF FOCUS GROUP PARTICIPANTS

The next step in the process was to give all those who participated in the 10 focus groups a chance to review the four proposed indicators that were developed on the basis of their discussions. The indicators were sent to all the participants and they were asked to rank from 1 to 4 those that they believe should be recommended for use in evaluation of youth programs funded by WIA. A previous draft of this section of the present report was sent to inform the participants of the process used to develop the four potential indicators. The form used in the survey is shown as Exhibit 5.

Exhibit 5. Form Used by Focus Group Participants to Rank Potential Indicators

Directions: Listed below are the performance indicators discussed in the report sent with this form. Please rank those indicators that you think should be used for youth program evaluation. Rank them with 1 being your most preferred, 2 your next most, and so on. You do not have to rank all the indicators listed. Rank only those that you think should be recommended for use in evaluating youth programs funded by the Workforce Investment Act.

	Rank
Program completers can articulate career goals and plans for achieving them that are based on a realistic assessment of their interest, abilities, and the resources available to them.	_____
Program completers demonstrate the ability to work well with others.	_____
Program completers manage their personal lives effectively, including budgeting, time management and accessing resources needed to overcome barriers to education and employment.	_____
Program completers demonstrate a good work ethic including punctuality, regular attendance, and doing what needs to be done.	_____

As shown above, the form asked the participants to rank only those indicators that thought should be recommended for use in evaluating youth programs funded by the WIA. All but one of the returned forms ranked all four, suggesting a general acceptance of the appropriateness of all the indicators. The response rate to the survey, however, was not good. A total of 108 had participated in the focus groups, but only 24 returned rankings. Repeated follow-up contacts were made by e-mail, telephone, and fax, but few additional responses were received. Part of the reason is that the survey was conducted

during the summer months of 2000. Many of the participants in the focus groups were educators and they were not at their contact numbers during the summer. Those that did respond were fairly evenly distributed across the nine regions where the focus groups were conducted.

Table 3 presents the average rankings of the four indicators. The respondents had been asked to assign a rank of 1 to their most preferred indicator, 2 to their second choice and so on. Consequently, the lower the mean the higher the indicator was ranked. The work ethic indicator was clearly the most preferred. Its average ranking is more than a full point below the mean for the indicator concerning career planning. This difference is statistically significantly at the .01 probability level, but the other three means are not significantly different from one another.

Table 3

Mean Rankings of Potential Additional Indicators Of Youth Program Performance

Potential Indicator	Mean	Standard Deviation	Number Ranking
Program completers demonstrate a good work ethic including punctuality, regular attendance, and doing what needs to be done.	1.54	0.88	24
Program completers can articulate career goals and plans for achieving them that are based on a realistic assessment of their interest, abilities, and the resources available to them.	2.65	1.19	23
Program completers manage their personal lives effectively, including budgeting, time management and accessing resources needed to overcome barriers to education and employment.	2.74	0.96	23
Program completers demonstrate the ability to work well with others.	2.96	0.86	24

The work with the focus groups thus yielded four potential indicators that could be useful in the evaluation of youth programs. Among an admitted limited sample of less than one-fourth of the total participants in the focus groups, the indicator related to work ethic was the most preferred By ranking the other three potential indicators, 23 of the 24 who returned completed forms, endorsed them as appropriate for use in evaluation.

SURVEY AND INTERVIEWS WITH PROVIDERS IN CENTRAL OHIO

The four indicators developed from the focus groups became the basis of a survey conducted with providers of youth programs from the Central Ohio area. This survey was designed to determine how many providers collected information relative to the four indicators, and if they did not, the reasons why, and preferences for how such data should be collected. Providers were identified from three sources: a database developed for United Way and the Greater Columbus Chamber of Commerce by Opinion Strategies, Inc. and lists obtained from Job and Family Services of Franklin County and the Private Industry Council of Columbus and Franklin County. These lists were compared to eliminate duplications and 47 providers were identified.

A one-page questionnaire presenting the four indicators was developed and faxed or mailed to the 47 providers that had been identified. The questionnaire is presented on the following page as Exhibit 6. The purpose of the survey was explained in the cover letter as follows:

> The Youth Employment Training Assessment is an initiative of The Center on Education and Training for Employment (CETE), a unit of the College of Education at The Ohio State University. As a project within the State University Education Deans Systems Integration Coalition, CETE was asked to study performance indicators and standards for providers of youth programs funded by the Workforce Investment Act of 1998, for the purpose of obtaining stakeholder input for consideration by Workforce Policy Boards at the state and local levels.
>
> Enclosed is a questionnaire listing four possible indicators for use in evaluating youth programs. These indicators were developed with broad statewide input. Focus groups were conducted with over 100 representatives of youth programs in nine of the Ohio School-to-Work regions.
>
> Now we need your input on these proposed indicators. We need to find out if providers of youth programs currently collect data about these indicators and how they would prefer to have data collected. The indicators that emerge from this research will be recommended for consideration to those implementing the Workforce Investment Act, both statewide and locally.

After two weeks, those who had not responded were contacted again by fax or telephone to encourage their completion of the form. Two weeks later, a second round of telephone follow-ups were made. Even with two rounds of follow-up, only nine completed questionnaires were returned. This number is too few for

Exhibit 6. Questionnaire Sent to Providers of Youth Programs in Central Ohio

Proposed Indicators

Please tell us if you currently collect data on the following indicators for your training program and your preference for collection. If you do not, please indicate your reason for not doing so.

1. *Indicator:* **Program completers can articulate career goals and plans for achieving them that are based on a realistic assessment of their interests, abilities, and the resources available to them.**

a. Do you currently collect this information? o Yes o No o Don't Know

b. If NO, why not?

o Never been required o Do not have resources to collect
o Do not feel it is important o Not applicable to my program
o Too difficult to collect o Other _____

c. Would you prefer to collect this data, or would you prefer to have it collected centrally?

o Self collected o Centrally collected o No preference

2. *Indicator:* **Program completers demonstrate the ability to work well with others**

a. Do you currently collect this information? o Yes o No o Don't Know

b. If NO, why not?

o Never been required o Do not have resources to collect
o Do not feel it is important o Not applicable to my program
o Too difficult to collect o Other _____

c. Would you prefer to collect this data, or would you prefer to have it collected centrally?

o Self collected o Centrally collected o No preference

3. *Indicator:* **Program completers manage their personal lives effectively, including budgeting, time management and accessing resources needed to overcome barriers to education and employment.**

a. Do you currently collect this information? o Yes o No o Don't Know

b. If NO, why not?

o Never been required o Do not have resources to collect
o Do not feel it is important o Not applicable to my program
o Too difficult to collect o Other _____

c. Would you prefer to collect this data, or would you prefer to have it collected centrally?

o Self-collected o Centrally collected o No preference

4. *Indicator:* **Program completers demonstrate a good work ethic including punctuality, regular attendance, and doing what needs to be done.**

a. Do you currently collect this information? o Yes o No o Don't Know

b. If NO, why not?

o Never been required o Do not have resources to collect
o Do not feel it is important o Not applicable to my program
o Too difficult to collect o Other _____

c. Would you prefer to collect this data, or would you prefer to have it collected centrally?

o Self-collected o Centrally collected o No preference

the calculation of any statistics. The only generalization that seems justified is that program performance indicators were not high among the priorities of those to whom the questionnaires were sent. Even stating in the cover letter that the indicators emerging from the research would be recommended to the state and local Workforce Policy Boards did not generate much interest.

Four of the seven organizations that returned questionnaires reported that they collected data on at least one of the four proposed indicators. Attempts were made to conduct personal interviews with representatives of these four organizations to determine just what they collected and how they used this information, but only two of the four organizations agreed to cooperate. Edited summaries of these two interviews follow. Initial drafts were prepared and submitted for review to the individuals who were interviewed. The summaries that follow incorporate all suggested clarifications that were received from those interviewed.

Village to Child Program, Ohio Dominican College
1216 Sunbury Road, Columbus, OH 43219-2099

Summary of interview with Joann Davis, Program Director, November 30, 2000

Program overview. The Village to Child program was developed to involve the College in its surrounding community. Ohio Dominican College has reached out to young people from the neighborhood around its campus in an attempt to build linkages between the community and campus. In 1994, Ohio Dominican conducted a study to determine what residents of the neighborhood thought of the college. The college held focus groups, conducted interviews, and met with civic organizations in the community. The conclusions of this research indicated that the neighborhood held the college in low esteem. Community residents considered it a detached and closed entity, a mostly white island in an area where the residents are predominantly African-American and the high school drop out rate is high.

The neighborhood that surrounds the college provides a dramatic contrast to the campus. This area contains two of the city's largest trailer parks, the largest portion of the city's Section 8 housing, a number of transient apartments that rent on a daily basis, and a lack of sewers and sidewalks in some areas. The college was, in essence, "a white city on the hill in a black neighborhood." Community residents felt the college took no active role in promoting education in the children of the community. The first programs implemented by Ohio Dominican were created to increase the college's involvement in the community.

The first undertaking was a one -week initiative on-campus program for sixth graders. One hundred students, mainly recruited by Ms. Davis, took part. The

Columbus Foundation, which provided some of the funding, wanted data from this sixth grade program and the results were not as high as had been anticipated. In response, the College slowly developed the Village to Child Program. The village is defined as the neighborhood within the local zip code, 43219. Each year 100 to 125 young people, with approximately 20-25 entering each year at the earlier grade levels, participate in the core program.

The program has always been academically based, with a large cultural component and an emphasis on leadership development through community improvement. The program has evolved to meet the unique needs of the children. Studies show that African-American children tend to be more influenced by their peers than white children. Keeping this in mind, the program uses a family groupings model, with the students serving as members of the same large family.

The program uses a cluster approach in mentoring the students. The students are assigned to a primary mentor, but may receive mentoring from several others. Ms. Davis, who ultimately serves as the head mentor to all of the students, decides the mentor cluster to which a student is assigned. Mentors are chosen on the basis of the student's interests and intended goals. Some mentors and students have been together for five years. Because the relationship between student and mentors is well established, the mentors are constantly aware of student plans and progress.

The work component of the program began when eight graders who were completing the original program did not want to leave. Because many of these children needed job related skills and work experience, the Columbus Private Industry Council (PIC) became involved. The students are exposed to a college environment and often hold jobs at the ODC campus during the school year, mostly in food service. There is a continuing commitment to the students. The program also strives to obtain jobs for the students in the neighborhood

One of the barriers to employment faced by the students is a lack of reliable transportation. Many of their parents do not own cars. To address this issue, the program provides a pick-up and drop-off transportation. Because all students are expected to attend, failure of students to be at designated pick-up sites often prompts fellow students to seek out absentee students. The students learn to look out for each other and function as a team. They are encouraged not to let each other down.

The students are encouraged to attend the alternative high schools in the Columbus area and given four-weeks of preparatory study before they begin attending. This component was developed because the first group had considerable trouble academically. Eight weeks of study are provided for PIC students. Students who will enter middle school receive four weeks of academic preparation. One week focuses on science, and the next three weeks feature

alternating classes in math, reading, and language arts. The students learn to move from class to class, as they have to do in middle school. The sixth-grade program emphasizes the sixth grade proficiency test. There is also an art program of two week for all students. The college's resources are used to expose the students to dance, art, and computer technology.

Measures of performance. Except for the forms used for the PIC summer programs, no standardized evaluations are recorded, but an on-going file exists for each student participating in the program. Assessment begins in fifth grade when students are asked what their career goals are. They are then asked to examine who in their family will help support them in pursuit of these goals and what types of training and skills their desired job would require. The students awareness of how to achieve these goals is enhanced by attending career fairs and visiting colleges. Local employers, including a division of the Department of Defense located in Ohio, send representatives to talk to the students about career planning and achievement. Many of these representatives also serve as mentors to the students. The DOD agency employs a high proportion of men involved in fields requiring math and science. The hope is that interaction with these men has a strong impact especially on male students who lack positive role models. These mentors discuss values, planning, careers, and school success with the students.

For the PIC summer programs, there are weekly evaluations on the students. The forms for these evaluations are provided by PIC, and modified by ODC for the purposes of the program. These evaluations are documented. Attendance and punctuality are documented. The Columbus Public Schools issue students a "career passport" so many of their career goals are on file with the school system. The students also are eligible to receive an ODC identification card and password which allows them to use the computer facilities at the college.

Last year thirteen students completed the program, nine of these students started the program as seventh graders and none entered it later than the eighth grade. Of these thirteen, eight were the first in their families to graduate from high school. High school graduation is the standard the program strives for because it represents a dramatic improvement in many neighborhood families. College admission is a plus, not the primary goal of the program.

Huckleberry House, 1421 Hamlet Street, Columbus, OH 43201

Summary of interview with Sally Murphy, Head of Youth Outreach, and Sarah Narendorf, Head of Transitional Living Program, December 11, 2000

Program overview. Huckleberry House offers a wide variety of services including a youth crisis shelter for walk-ins or referrals. It has served the community for 30 years and its programs have responded to the changing needs of youth. The facility includes dormitories for sheltered youths and administrative offices. Huckleberry House is a no-reject shelter and will accept anyone who meets legally established criteria. It is capable of dealing with severe mental and behavioral issues and has professionals trained to deal with these situations available on a 24-hour basis.

Huckleberry House offers transitional programs for young people. The goal is to enable youth to make a successful transition back to their homes. Because this is not a possibility for every young person, Huckleberry House offers a transitional living program. This program sets up the young person in an apartment. While living there, the participant is required to be employed or in school. The program also seeks to help them develop skills for job readiness. There is consistent monitoring of student employment.

A student typically stays in the transitional living program for an average of 14 to 15 months. The target maximum is 18 months, but occasionally the time is extended for compelling reasons. A time frame of one year, the length of the typical apartment lease; is considered the ideal.

Huckleberry House also has a rapid response team that is dispatched in response to various crises throughout the community. This team is under contract to other agencies to serve youth in crisis, such as school counseling for suicides. Huckleberry House offers a full after-care program and serves both family and youth. The Community Service Assistance program involves pre-employment and job finding skills. It serves as a coach in assisting youth with developing job skills and employment.

Huckleberry House provides youth outreach. The employees and volunteers go where the most at-risk young people are, including runaways and homeless youth. School guidance counselors often refer youth to Huckleberry House. Students may become involved when their parents request assistance. Many of these youth in these programs are not immediately ready to obtain employment, but an employment assessment is conducted for each incoming youth. This is not done for outreach, and the transitional living program requires separate documentation.

Huckleberry House primarily serves the age group of 12-17, which offers a window to develop work readiness and employment opportunity. There are often many barriers to address before dealing with employment issues. Prevention groups meet after school to discuss drug and alcohol abuse prevention. The special problems faced by African-American young women are addressed in their meetings.

Huckleberry House assists an under-served population, older youth who are not attending school. The community has few appropriate services for people who are 18 years or older but not ready for an "adult" environment or shelter. The staff works with faith organizations, and other non-governmental organizations to search the community to find resources for these older youth.

Huckleberry House received no money under the Job Training and Partnership Act, and at the time of the interview received no funding through the Workforce Investment Act. It is working with the Private Industry Council on a program that focuses on putting people on welfare back to work. The grant is funded by the Department of Labor.

Measures of performance. Data collected on participants include information on mental health, educational participation, truancy, and employment. These data must be collected on each participant as a requirement of the transitional living program. There is continuous assessment on employability. Much of the emphasis is on school proficiency tests, mentoring, and conflict resolution.

Every participant has an individual service plan with vocational and educational goals. Goal attainment is evaluated when young people leave the program. Evaluation of the extent of goal achievement is ranked on a scale of 1-5. There is no standard form used, evaluations are created on an individual basis. These evaluations include the steps for action and the needs to reach the stated goals.

There is information collected at intake and discharge. The ability to get along with others is not a measure of performance, unless it is specifically included in an individual's service plan. Because the barriers to employment, self-initiative, and authority issues are very individualized, there are few standard measures.

One standard by which all students are evaluated is the Daniel Memorial Assessment. This evaluation measures independent living skills, budgeting, and time management. This assessment was developed by the Daniel Memorial Home for Children, a community center located in Jacksonville, Florida. (This institution is now known as *daniel*. Contact information follows.) Students take this test on entry into the transitional program, and repeat the test every six month to determine improvement. Students use the short form of the test,

which consists of 90 questions. The test can be taken orally or on paper. Most students take the paper version. The longer form of the measure has 280 questions and is not used by Huckleberry House.

In measuring outcomes, there is a conflict between individualized measures and generalizing to overall program outcomes. Huckleberry House focuses on tangible outcomes, *i.e.*, the percentage of goals achieved by individuals. Educational goals are considered the most significant.

Once the individual data are assembled, they are summarized as program outcomes. The information indicates pre to post-test improvement. Huckleberry House just started collecting this information within the last year and has not yet developed a systematic method of using it for program improvement.

Contact information for daniel:

The Daniel Memorial Home for Children has operated for 116 years and publishes many different educational and life skills materials for children and adults. It has recently changed its name to Daniel, all lower case letters. Its address is

daniel
4203 Southpoint Boulevard
Jacksonville, FL 32216
1-904-296-1055
Website: www.danielkids.org
E-mail: info@danielkids.org

GUIDE TO USE OF DATA

In the original scope of work for the examination of the WIA indicators, a provider workshop had been proposed. The objectives of this workshop were to review the program performance indicators mandated by WIA and provide an opportunity for participants to comment on the utility of the indicators that had been developed from the focus group data. The poor response to the survey led project staff to reconsider their plans for the workshop. Only nine of the 47 providers who received questionnaires returned a completed form, even though the form was only one page long and could be completed in less than five minutes. This implied that there would be very few providers interested in attending a workshop that would mean a commitment of at least half a day.

The interviews with the two providers reported in the previous sections yielded further, albeit limited, evidence that administrators are not linking data to program improvement. In these two programs, the data that are collected are used to plan and assess services provided clients, but not to guide program improvement.

Given the limited current interest in performance indicators, a decision was made that rather than attempt to conduct a workshop, at which attendance would be questionable, a guide on how to collect and use data would be prepared. The guide was written with program administrators as the intended audience. It attempts to raise awareness of how data can lead to better programs by providing information on the degree to which objectives are being achieved. The guide was written as a primer, assuming no prior knowledge of research methods or statistics.

A draft of the guide was sent to the same youth service providers to whom the survey of current data collection had been sent. The purpose of the guide was explained in the cover letter in this way:

> For the past two years, our Center has been working with providers of youth programs to develop potential performance indicators for use with their programs.
>
> Please find attached a draft copy of "Using Data to Improve Programs for Youth: A Primer". This document explains how data can be collected and used as a tool for improving programs such as yours. The publication attempts to provide a starting point for program administrators.
>
> We would like to identify administrators who would be willing to review and provide feedback on the enclosed document. Input from potential users will help us determine if the publication provides useful information and guidance.

> If you would be willing to comment on this document, please reply to this message indicating your interest. At a time convenient to you, we will contact you by telephone to obtain your comments.

The guide was mailed the last week in May 2001. By June 22, one administrator had responded. A telephone follow up was made with a representative of the responding provider, Ms. Kathryn Meyers, Marketing and Development Director of the Salesian Boys' and Girls' Club of Columbus (Ohio). Ms. Meyers was very complimentary of the guide. She felt it was the most useful explanation of the performance indicators for WIA youth programs that she had encountered. She suggested that the discussion of identifying the purpose for data collection be expanded and emphasized and this change was made. The final draft of the guide is included as an appendix to this report.

Conclusion

The four potential indicators of the performance of youth programs that emerged from the focus groups essentially supplement the first of the core indicators mandated by the Workforce Investment Act. The first mandated indicator is as follows:

> Attainment of basic skills as appropriate, work readiness and occupational skills (WIA Sec. 136(b)(2)(A)(ii)(I))

The four indicators from the focus groups represent further definition and examples of what *work readiness* involves: career planning, managing one's personal life, punctuality, regular attendance, and working well with others. The four potential indicators could be used to develop measures of the degree to which participation in youth programs develops such skills and behavior.

The data this study produced indicate that few youth service providers in the Columbus, Ohio area currently use data to guide program improvement. This statement is based more on the poor response to the survey rather than the actual results it produced. Less than 20 percent responded to a one-page questionnaire and only two were willing to be interviewed about their collection and use of data. Only one of 47 providers responded with any comments to a draft guide on the use of data for program improvement. It appears that much training and development will be needed to prepare providers of youth programs to use data for program planning and evaluation.

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APPENDIX

Using Data to Improve Programs for Youth: A Primer

Using Data to Improve Programs for Youth: A Primer

Susan Resch
Morgan V. Lewis

Prepared for

Ohio Department of Education
Career-Technical and Adult Education
As one component of
State University Education Deans'
School-to-Work Systems Integration Coalition

Center on Education and Training for Employment
College of Education
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August 2001

Introduction

The purpose of this guide is to provide an informative summary on the importance and relevance of data for program managers and stakeholders of youth programs funded by the Workforce Investment Act. The guide describes how data can be used to improve program effectiveness, as well as guidelines for collecting and analyzing data. The guide is intended for those not familiar with data collection or statistics.

The Workforce Investment Act (WIA) has raised the standards of accountability for youth training providers. The Act establishes new indicators and standards at both the state and local level for providers, which make the accurate collection and analysis of data all the more crucial and vital to the success of a program serving youth. A brief overview of the main provision of the WIA follows:

Core Indicators of Performance for Youth Training Providers: (WIA Sec. 136 2,A)

For providers serving youth ages 19-21:

1. Eligible youth who enter post-secondary education, advanced training, or unsubsidized employment.
2. Eligible youth who enter an activity listed in indicator 1 who received a credential by the end of the third quarter after exit.

For providers serving youth ages 14-18:

1. Attainment of basic skills as appropriate, work readiness and occupational skills.
2. Attainment of secondary school diplomas and their recognized equivalents.
3. Placement and retention in post secondary education or advanced training, or placement and retention in military service, employment or qualified apprenticeship.

Customer Service Indicators:

The customer satisfaction indicator of performance shall consist of customer satisfaction of employers and participants with services received from the workforce investment activities authorized.

Customer (employer and participants) satisfaction may be measured by surveys conducted at the conclusion of participation in the workforce investment activities. The U.S. Department of Labor American recommends the Customer Satisfaction Index (ratings on 3 scales from 1 to 10) for this measure, but local boards may adopt different measures if they yield comparable data.

Additional Indicators:

The State may identify in the State plan additional indicators for workforce investment activities. Local boards may adopt indicators beyond those required by the state.

Target Population Groups:

Youth must be ages 14-21, low income, and meet at least one of these six specific barriers to employment:

1. Deficient in basic literacy skills.
2. A school dropout.
3. Homeless, a runaway, or a foster child.
4. Pregnant or a parent.
5. An offender.
6. An individual who requires additional assistance to complete an educational program, or to secure and hold employment.

Five percent may be non-low income if they have specified barriers to school completion or employment. At least 30 percent of the funds must be spent on out-of-school youth.

The major difference in youth programs between the WIA and previous legislation is the requirement for continuous, year-around service. In the past, much youth programming had been

delivered in the summer, often as a combination of work and study. WIA calls for continuing service from enrollment until successful completion or termination. All providers must have available for all participants the following types of services:

- Tutoring, study skills, and instruction
- Alternative secondary school services
- Summer employment
- Work experience
- Occupational skill training
- Leadership development
- Supportive services
- Adult mentoring
- Follow-up services
- Guidance and counseling

All providers do not have to offer all these services, themselves, nor do all participants have to receive all 10. Providers must, however, have established methods through referrals and cooperative agreements to make all 10 services available to all participants who need them.

Providing such an array of services on an ongoing basis greatly increases the need for accurate data to track the progress and outcomes of participants. This guide is designed as a non-technical introduction on how to collect and use data to assess and improve programs.

Creating Meaningful and Effective Goals and Outcomes

The first step to making use of data is to formulate clear, relevant goals and outcomes for a program. Collected and analyzed information can then be used to indicate if the program achieved its defined purpose, stated objectives, and desired outcomes.

According to Levesque and others (1998), successful goals and outcomes have the following characteristics:

- They are meaningful
- They are realistic
- They are complimentary to the overall vision of the program
- They contain clear priorities
- They involve the knowledge and support of all stakeholders
- They are measurable

Goals should be clear

Well-written outcome objectives serve as a road map for programs by providing a clearly defined path for staff and participants to follow. Poorly written objectives lead to confusion and misplaced efforts (Ma, 1995). Objectives can be determined by questioning what outcomes are desirable, feasible, and realistic. Well-defined goals are more easily understood and more readily supported by all stakeholders. Goals should be written in terms of succinct, declarative statements beginning with "students will . . .", or "participants will . . ." (Wagner, 1995). For instance, a goal may state: "Participants will attain non-subsidized employment within six months after completing the training program".

Goals should be specific

Creating goals and outcomes is a difficult process because what is desired can be too broad or too specific to be realistic and relevant. Some goals simply cannot be quantified or measured, or

are so subjective that they cannot be a shared effort. For example, increasing student employment opportunities is an example of a goal that is simply too broad and subjective to be measured. Seeking an increase in student satisfaction with certain aspects of the program, such as employment placement services, however, is a more concise goal and can be measured through follow-up questionnaires and interviews.

The Scope and Number of Goals should be manageable

The scope of the goal and the number of goals can diffuse and frustrate efforts to measure progress by spreading resources too thin. It is important to focus on the needs judged to be most important.

Stakeholders should be able to understand the objectives involved

Goals need to be clear and concise from the onset so that everyone involved in the collection and processing of the data are looking for the same factors. All people filter information through their own internal baggage of assumptions, prejudices, and attitudes, so some variation of interpretation can be anticipated no matter how succinctly a goal is stated. For example, one observer may see a loud classroom as disruptive while another may view it as enthusiastic. Some observers may feel attendance is more important that performance, while others may feel the opposite is true. Precisely identifying desired outcomes and goals reduces this subjectivity, but cannot eliminate it.

Goals can reflect existing policies

Goals do not need to be new. They can be the stated objectives of a program, existing goals, or adaptations of goals set by other organizations or schools. It may be possible to adapt the goals of other institutions and programs for another program, but the ultimate concern should be the relevance of the goal to the program being studied. Rates of GED attainment achieved by one program, for instance, may not be indicative of the rates that should be achieved by another school, especially when other factors, such as age of school withdrawal, are taken into

consideration. Goals should address the unique nature of programs if they are developed specifically for the program

Goals may be long term

Goals may require long-term strategies to implement. Unrealistic expectations of the timeframes required can diminish enthusiasm and the perception of improvement. Realistic expectations of the time necessary to achieve goals should be an important component in developing the goals. Typically, only those employed by a program will "stick around" for long-term efforts, while business partners, parents, participants, and students will be more interested in short-term results.

Goals Require an Assessment of the Current Situation

Effective goals are grounded in the current reality of a program's strengths and weaknesses. Goals that do not accurately account for the program's current situation are often unfeasible.

All Stakeholders should be identified and involved

When determining goals, all stakeholders must be identified and involved in the process of goal setting. By involving all the stakeholders, the potential for redundant efforts is reduced and the maximum effectiveness of measurement is increased. Many programs exist to address pervasive problems, and similar programs in the same field should be consulted before beginning any data use projects that require new and extensive data collection efforts. This not only avoids duplicate efforts, but aligns goal setting with the efforts of those in same community and field, which can foster a sense of shared mission (Wagner, 1997). Stakeholders not only contribute to achieving the goal, but assist in the collection and identification of the information necessary to determine if the objectives of the goal have been met.

Goals must be tangible enough to be measured

To be effective, goals have to be tangible enough to be measured, meaningful to the program, and contain clear priorities. For instance, the goal of increasing student attendance is easily measurable using past and present attendance records, relevant to the success of the program in which the students are enrolled, and clearly related to the progress of students in the program. On the other hand, a board based, subjective goal like involving students in program improvement is too vague, intangible, and subject to multiple interpretations.

Using an Existing Mission Statement to Determine Goals and Outcomes

An existing mission statement can be the foundation for creating goals and outcomes. A mission statement is a list of commitments and principles that a program seeks to uphold and enforce. Reflecting on a program's mission statement can be very productive.

Holcomb (1999) recommends the following exercise for examining an existing mission statement and determining how to measure it in terms of collecting data. Stakeholders list the major points of their mission statement under the heading "What We Say". Stakeholders then determine how to prove or plan to prove that these points are met in the adjoining "Evidence We Have" and the "Evidence We Need" columns. This exercise is helpful in identifying what sources of data currently exist and for creating goals and desirable outcomes. This exercise can also suggest ideas and innovations in data collection methods and practices. The table is shown with hypothetical content (Holcomb, 1999).

Translating a Mission Statement into Outcome Measures

What We Say	Evidence We Have	Evidence We Need
Development of Academic Skills Necessary to be a functioning, productive citizen	Entrance Tests Exit Tests Progress Reports Program Completion GED Completion Rates	Instructor Input Continued Education and Training Statistics
Attainment of employment	Job Placements Employer Reviews	Follow up information on –Salary –Employment Retention –Job Satisfaction
Successful Development of Life Skills	Life Skills Assessment Room Inspection Reports Money Management Assessment	Follow up information on: –Use of community resources –Effective economic decisions
Drug Free Atmosphere	Drug Test Results Drug Related Expulsions Arrest Records	Follow up information on: –Additional arrests for drug related activity

About Data and Data Use

What Are Data?

The word *data* is defined as a collection of things known or assumed such as facts, figures, evidence, records, and statistics from which conclusions can be drawn (Ma, 1995). Data are commonly collected on events (birth, death), people (demographics, school grades), and processes (programs, organizations). Some of the more familiar forms of data are the records routinely maintained by local, state and federal authorities and agencies, schools, and organizations. Data alone do not supply meaning, but people can use data to develop meaning (McNamara, 1999). Data create a foundation upon which decisions are formulated and questions answered. Data can be used to buttress arguments, prove points, illustrate changes over the course of time and create comparisons (Ma, 1995).

Using Data to Benefit a Program

Data can be the foundation and profile of a program's successes and failures. Like an artist's portfolio, a collection of data presents a program's range of skills, its best products, and evidence of progress and acquired learning. Such a collection provides a unique picture of the program as a whole (Holcomb, 1999). Using data to analyze what is and is not working can determine the ultimate success of a program. Through the study and collection of data, areas of poor performance can be weeded out before additional time, money, and energy are wasted on them. Resources can be better allocated to achieve success, sounder strategies can be implemented to save time and money, wasteful portions of the program can be overhauled and successful strategies can be strengthened. Productive activities can receive more resources while failing initiatives can be phased out or subjected to intense improvement efforts. The time dedicated to the collection, analysis and use of data is usually well spent in terms of program success and support (Holcomb, 1999).

Many programs are subject to public demands for accountability, and data can provide evidence of a program's effectiveness. Information acquired from data can be used to demonstrate the vital

roles a program plays in a community and encourage public and private support for a program's efforts. Funding sources, such as federal and local governments, often require data as verification that the money allotted to a program is well spent and worth the investment.

Hendricks, (1996) has listed the following benefits that data collection and analysis can yield for a program:

- Increased recognition of successful strategies already in use
- More efficient and economical operation
- Identification of staff and student needs
- Improvement and updating of program content and delivery
- Improved community perceptions and contact
- More accurate understanding of intended and unintended outcomes
- More effective staff participation and input in improvement

Motivations for Data Use

The collection and use of data are motivated by both intrinsic and extrinsic factors. External pressur s and requirements for results are usually the most common motivational factors for programs. Programs are accountable to various parties, including funding sources, students and participants, and the communities they serve. Internally motivated data collection originates and operates within the foundation of the program itself, spurred by the individual interests of the program. Internally motivated, program-specific data collection is usually the most effective and embraced approach. This motivation involves a commitment to providing proof in a manner that is meaningful to the person collecting the data and the program, rather than complying with the external forces of mandates (Holcomb, 1999).

For instance, employees of a program are likely to be more enthusiastic at the prospect of collecting data to improve the program in a direction they have determined to be beneficial rather than simply performing routine collection for the sole benefit of a third party, such as a government agency. This is why it is essential to motivate stakeholders about the importance of

data to program success from the start of collection and analysis efforts, even if the collection must be done for a third party as part of an accountability process.

The Challenges of Data Use

As valuable as data may be, there is often resistance to using data as an informational tool to achieve desired outcomes. Six common difficulties, identified by Holcomb (1999) are listed below.

Lack of Training and Familiarity

The first problem is the lack of training and familiarity with data collection methods and uses of data as measurement tools. The very concept of statistics makes many people uncomfortable, and those who have taken statistics courses are likely to recall only the difficulties involved, rather than the possibilities and relevance to their program.

Lack of Time

The lack of adequate time is almost always a factor. Only so much time can be allotted to activities, like data collection, that are not immediately relevant, especially when a program is understaffed or overwhelmed by other activities.

Feast or Famine

Many data collection and use efforts are unintentionally made difficult because the collection methods result in an unexpected surplus and unmanageable amount of information. The sources of data may seem scanty at first, but once a thorough search and collection are underway, stakeholders are shocked by the resulting amount of information. The perception of scarcity and the reality of plenty overwhelm many data use efforts.

Fear of Evaluation

The fear of evaluation also hinders data collection and use. Not all outcomes of data use will be favorable and this can promote an anxiety about negative applications and hidden agendas. For

instance, stakeholders like teachers may fear the loss of their jobs based on student evaluation data.

Fear of Exposure

Apprehension over exposure also impedes data collection and use efforts. Inadequacies will potentially be exposed, a situation that may make many stakeholders uncomfortable and resistant to data use efforts. For instance, a stakeholder may be concerned about failing in the data use effort, thus exposing an inadequacy.

Individual vs. Systematic

The use of data can also challenge an existing institutional structure. Individual stakeholders are, in effect, taking collective responsibility for the effectiveness of a program. Working collaboratively often violates individual approaches to program improvement and replaces it with systematic efforts. Stakeholders who highly value their independent efforts and techniques may resist a program-wide effort.

Another hindrance to effective data collection is the disruption of regular program schedules (Hendricks, 1996). Disruptions of program routines imposed by observers or time taken to complete interviews or questionnaires can create resistance to data collection efforts.

Johnson (1997) recommends that a theme of continuous improvement should be stressed in data collection rather than the image of a fact-finding mission with the potential for singling out specific staff members. Vague reasons for requesting data will create apprehension and possible resentment.

Using Data That Have Already Been Collected

The challenge of data use not only involves the actual collection of data, but determining the relevance and effective use of those data already in existence. Most programs routinely record data regarding their participants, such as attendance records, completion rates, and program

specific information. Most of these data are routinely filed and rarely assembled together in a structured way to serve as a source of in-depth information.

Often, no one person has complete knowledge of all the collection methods, data storage, and current use of existing data. This can have a negative impact on the ultimate success of students and participants, who may slip through cracks due to the ineffective dissemination of available data. A student needing tutoring in reading, for instance, may not receive it because test scores are not easily accessed. Some schools and programs routinely collect more data than they can effectively use, effectively rendering themselves data rich and information poor. The challenge is to use available data wisely (Johnson, 1997).

Often data are used only for individual assessment of participants, rather than gathered together as measures of program progress. Seemingly random data, if properly aggregated, can serve a valuable purpose in defining goals and providing measurement of progress as well as a foundation for additional research.

Usage of existing data can begin with archival data such as attendance records, grades, referrals, retentions, and standardized test results. These data create a program or school specific baseline by which comparisons to similar institutions can be made. Such data can typically be sorted by grade level, race, age, and socioeconomic status to produce even more informative patterns (Johnson, 1997).

Existing data are a source of information that can be used to evaluate a program without the added expense or effort of additional data collection. Before beginning the process of collecting data to measure program achievements, it is helpful to review the methods currently in place for collecting data and to examine those data that are already collected to avoid duplicating existing efforts.

Collecting Data

Identifying Stakeholders

Determining all stakeholders is critical for the success of any data collection or analysis effort. A stakeholder is any interested or invested party involved in the program, including participants, parents, instructors, counselors, administrators, support staff, community representatives, and business partners. Each brings a different perspective to the data collection process.

Singling out certain stakeholders will often result in a lopsided, biased approach to setting goals, collecting and using data. For instance, involving only the administrative staff may result in studies and goals that are related to budgetary issues, rather than the program as a whole. Instructors may not view data collection in terms of overall results, but from the perspectives of their students and individual classes. Program staff will often be interested in the long-term nature of data collection and use, while other concerned parties may be interested in those goals particular to their circumstances or agendas. Identifying and including all stakeholders reduces the likelihood of duplicated efforts, mismanagement and poor communication.

Identifying the Purpose

Accurately identifying the purpose of data collection efforts is the best way to avoid confusion, indifference, and possible resentment from stakeholders. The most important step is explaining to those who will be involved the reasons why the undertaking is necessary. An explanation is especially needed with those outside the agency, such as parents of enrollees in a youth program. The explanation should cover what you want to accomplish or find out. All communications should emphasize how the data collection will help the program and its stakeholders achieve their goals. (Hendricks, 1996).

personal interpretations of the researcher or those being studied to affect the results. Objective measures apply the same standards of measurement to all data in a uniform way.

Non-Reactive Collection Methods. Standardized tests, attendance records, and student grades are routinely collected and not subjective. (There is, of course, a high degree of subjectivity in a teacher's assignment of grades, but that is not the meaning in this context.) These data are often called "internal sources" and are usually comprised of existing records collected on a routine basis. There is no reaction on the part of the students because they are unaware that they are the subjects of a data collection effort. Research of records also has a low degree of personal subjectivity on the part of the researcher since most records are based on widely accepted symbolic interpretations of student behavior and achievement, such as letter grades. There is no physical contact between the evaluator and the subjects of the study, and consequently, there is no reactivity.

Examples of Non-Reactive Methods:

- Enrollment Records
- Attendance Records
- Budget and Program Reports
- Completion and Placement Rates
- Standardized Tests

Collection Methods with Reactivity. A more direct method of data collection, such as observing a class in progress, produces a reaction among those being observed because they are aware of the observer's presence. The observations of the class are therefore affected to some degree by the presence of an observer. The sight of an observer collecting and recording information in a classroom is bound to alter the dialogue and dynamics of that class. Teachers and students may react to being observed by engaging in activities they assume the observer will appreciate or expect, even if it deviates from the normal classroom routine. All information collected by an observer is also subject to the individual perceptions and interpretations of the observer.

Examples of Reactive Methods:

- In-class observations
- *Completion of questionnaires*
- Focus groups
- Interviews
- Evaluations of student work or projects

Data collection methods that involve intense, individual contact with students produce a high level of reactivity.. Interviews and questionnaires introduce information that can alter responses. There is always some ambiguity in responses since students may express answers in their own terms and not directly address or answer the questions put to them. Many students asked about the quality of a program may digress and name their personal grievances or list unrelated items and suggestions instead of supplying a direct answer. A participant asked about the quality of a work experience program may criticize the difficulty or getting to the work site, rather than address issues that are more pertinent.

There is a difficult distinction between prompting an interviewee to answer a question and influencing the respondent to supply the response desired, or expected, by the interviewer. Such research can be highly influenced by the researcher's own perceptions. Each interview involves processing considerable input to select "relevant" responses to record and report. In a group interview (focus group) situation, the discussion can be dominated or altered by those moderating the interview or by dominant, outspoken participants in the group.

External Data

Supplemental data can be sought from external sources in the immediate community, similar programs and organizations, and academic institutions. For instance, many general statistics on youth are collected by government agencies, youth oriented programs, and organizations. Additional sources of data can be in the form of census records, unemployment rates, high school dropout rates, and other regularly collected statistics. These statistics can be used for

comparative purposes or to supplement those collected by an individual program. They can usually be attained with a little searching and can save considerable time in data collection efforts. For example, a program may wish to compare the poverty levels or unemployment rates of its participants with both national and state averages to gain perspective on the population it serves.

Examples of External Data:

- Census reports and demographic statistics
- State and federal records
- Poverty rates and unemployment statistics

The most effective research makes use of more than one method for gathering information. Ideally, an effort to collect and analyze data would include a combination of non-reactive and reactive measurement methodologies. The basic research concept of triangulation, the use of multiple indicators to confirm a finding, is helpful in this regard (Holcomb, 1999). Just as ships relied on several sources (astronomy, charts, and instruments) to determine their actual location, the process of determining progress should be based on several sources of data in order to achieve the greatest accuracy.

Methods of Original Data Collection

Focus Group (Group Interview)

This method of collecting information involves the participation of a small group (8-12 people) who focus on the discussion of a particular topic. The conversation is led by a moderator so that it remains on the subject in question.

Polls, Surveys, and Interviews

Participants respond to a series of uniform questions. Fixed-response answers alternatives are usually provided for the participant so that the results may be easily and accurately calculated. Surveys may be conducted with self-administered forms that can be completed in a group setting or sent through the mail. For those with access to the Internet, computer-based surveys are becoming more common. There is a web site, www.zoomerang.com, which provides assistance in designing questions and analyzing data at quite low costs. One-on-one interviews, either in person or by telephone, offer much more flexibility than self-administered forms. It is possible to follow up on comments and explore answers in depth. These advantages come with an increase in the cost of data collection and involve higher levels of reactivity with the potential for bias.

Observations

Observations may be performed openly or covertly. Covert observations are more difficult to arrange, and may raise legal and ethical questions. Observations are always subject to reactivity, even if they are covert, because observers select the behaviors they notice and record.

Using Data to Measure Goals and Outcomes

One measurement or source of information alone cannot determine the achievement of an outcome or a goal based on multiple factors. The most feasible goals are those that can be accurately measured using multiple sources of data collection. For instance, a measurement of an increase in student enrollment in a skill-training program does not necessarily demonstrate or indicate improvement in the program as a whole. It may simply reflect an increase in the population in that age range, resulting in a temporarily higher enrollment rate. Enrollment is essential to the success of the program, of course, but it is must be supplemented with other measurements such as attendance, completion statistics, and placement rates to determine if the program is succeeding or not.

Multiple sources of data are essential for developing accurate measurements. For example, the goal of attaining high levels of successful job placement for all participants would require data sources such as placement data, employer surveys, and follow up program completers to determine job retention (Levesque, 1998).

Measurements should be clearly defined so that they may be accurately reported and applied to goals.

Data Spreads

Data can be spread out, or distributed, to define the overall character of program performance. A spread of data can highlight the strengths and weakness of a program. It is important to simplify data through the use of simple statistics, rather than an overwhelming amount of information. Single statistics, however, cannot provide a comprehensive picture of a program, and should be combined with other statistics to identify trends and patterns. The use of tables for comparison and illustration, along with summarized statistics, is especially helpful in conveying the "whole story" (Levesque, 1998).

As a Single Statistic

55% of program participants have earned their GED

This statistic alone cannot convey complete information, but neatly sums up the combined data on GED earners in the program.

As a Comparative Table:

Highest Level of Education Completed	**Percent of Participants**
Junior High Grades 6-8	5%
Some High School	10%
GED	55%
High School Diploma	20%
Some Community College	1%
Vocational School	9%

Measuring the Spread

Data can be measured and evaluated by examining the range of the data. This is done by determining the lowest and highest values. The average, or mean, from these numbers is usually determined. Examining a range of data can identify patterns and undesirable results. For instance, a range of data in which an unacceptably low level of program completion is identified can be addressed with aggressive efforts to those increase those numbers.

The Data Range of the Data Spread Example of program participant educational achievement is 1% to 55%, which are the lowest and highest values, respectively.

Outliers

Outliers are the extremely low or high values that can distort or skew the outcomes of averages (means). Outlying numbers often deserve special attention. Removing outliers from the calculation of program averages can reveal more typical results. Care must be taken, however, in how outliers are defined. In the Data Spread Example above, the 55% obtaining a GED is the most extreme figure, 35 percentage points higher than the next highest figure. It is not an outlier, however, because it is reflects the education attainment of over half the participants.

Outliers are frequently encountered when follow-up studies are done of the employment experiences of program completers. It is not unusual to find the most frequent earnings to be in a range of $8.00 to $10.00 per hour. A few former participants, however, may be earning two to three times this amount. If these atypical earnings are included, they have a strong impact on the average earnings reported for all participants.

Arranging Data: Quartiles and Deciles

Placing data in a range does not distribute data evenly, it only indicates the highs and lows. In order to determine if the data are distributed evenly, bunched, or concentrated, the use of quartiles and deciles is recommended. These methods subdivide the data so that these patterns are easily detected.

Quartiles divide data into four equal parts. These four parts are the lowest 25%, the lower middle 25%, the upper middle 25%, and the top 25%:

Top 25% on a measure of interest
Upper Middle 25%
Lower Middle 25%
Lowest 25%

Deciles divide a distribution into 10 groups, each with an equal number.

It is important to underscore that these distributions are based on the measure of interest, such as reading scores or post-program earnings. The number in each of the groupings is determined by the total number for whom measures are available. The utility of quartiles and deciles increases as the number being analyzed increases. It is possible to create quartiles with just four measures, but little is gained. When the number being analyzed becomes larger, patterns emerge.

Translating Data

In order to have meaning, data and statistics must be translated into concrete, universally understood terms. It is essential that all stakeholders be able to understand the significance of the data. Numbers may fail to convey the meaning if they are not translated into easily understood terms. For instance, a typical school year has 180 days. Average attendance of 92% may seem good at first, but the meaning changes dramatically if it is presented as an average of 15 days of absenteeism per student.

Presenting Data

The successful presentation of data is determined by two factors: the clarity of analysis and the clarity of communication (Levesque, 1998). Identifying the intended audience before preparing a presentation is crucial.

The methods of presentation, format and tone will vary according to the intended audience. The use of specialized jargon will alienate an audience that is unfamiliar with the field being discussed. Research results should be written and presented with the reader in mind. Terms and acronyms used exclusively by a program will not translate to an outside audience without clarification and simplification. Presentations should include visual aids, such as graphs, to express findings rather than rely on statistics alone (Ma, 1995).

Displaying Data and Research Results

It is crucial that the intended audience is immediately made aware of several important factors during a presentation of data and research results (Levesque, 1998).

Who or What is Represented

The audience will need to know who or what is represented in a presentation in the most specific terms possible. If the data are about single mothers involved in a job skills class, be sure to indicate that detail rather than labeling them as "generic" participants.

Units of Measurement Used

The unit of measurement used to determine results is crucial in understanding the relevance of the results. Measurement standards used exclusively by a program will require an explicit explanation to outside parties. Be sure all numbers are fully defined. If an audience cannot

determine if a number indicts a percentage, a dollar value, or other value, a presentation will only cause confusion.

Size of the Denominator

It is vital to provide information on the amount of individuals or entities (programs, organizations, etc.) upon which statistics are calculated. These numbers serve as a base for the research and are essential to an understanding of statistical relevance. For instance, if a table provides results on a life skills test taken by unemployed youth, it makes a great deal of difference if the results are based on one program or several and if the number who took the test was 10 or 100.

Time Period Covered

Different time periods incur different data. Tests are administered during different seasons or semesters, and each year reflects certain demographic trends. If a study examines data collected over a long time period, that time period should be specified. Future trends and patterns can be erroneously assumed if the time period is not factored into a study.

The Data Source

Data sources should be acknowledged and noted in any presentation. An audience will be better able to understand the nature of the data presented when sources are noted. An audience is more likely to perceive that data are reliable and valid if they understand the attributing source. Identifying the data source also gives the audience a better perception of that subjectivity and objectivity of those data.

Tables and Figures

Visual presentations of research results are an appealing way of presenting otherwise boring and overwhelming amounts of numbers and data. Key findings and important patterns are best conveyed through the use of visual aids that are easy to read and comprehend.

Tables

Tables are often more effective in presenting large amounts of information than graphs and charts. Graphs can be overwhelming if they contain too much information. Tables have the benefit of being able to contain more information, which can be highlighted or bulleted to emphasize important points or trends.

Example of a Table

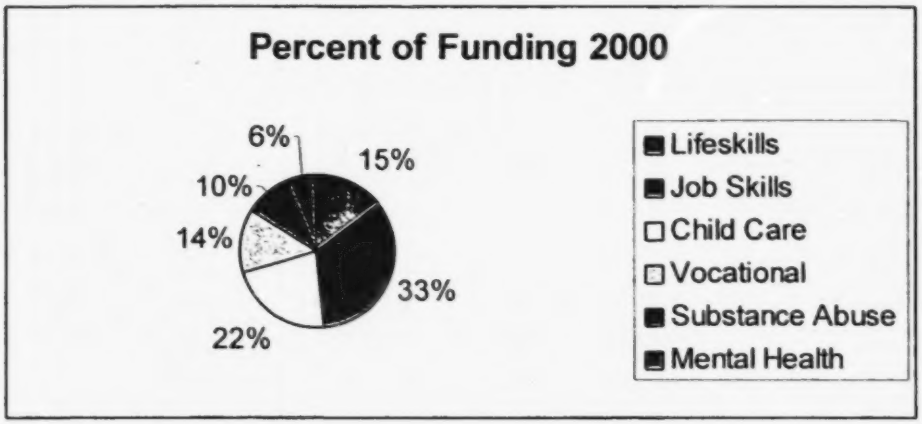
Survey Results: How Many Participants Are Satisfied With Their Training?			
Percentage of participants, by year	1998 %	1999 %	2000 %
Very Satisfied	41	34	38
Satisfied	19	22	22
Somewhat Satisfied	25	30	30
Not Satisfied	**15%**	**14%**	**10%**

Figures

Figures include visual representations such as pie charts, line and bar graphs, scatter and distribution charts. These are universally successful representations for diverse audiences, because the human tendency is to be visually oriented. These visual representations are employed to give quick conveyance of major trends, patterns, and results to an audience. The wise use of these visual aids will greatly enhance accurate understanding by an audience. They should be simple, easy to read and interpret.

User-friendly, accurate and clear results are essential for successful presentations. Graphs should be clearly labeled and not overly elaborate or colored to the point of confusion.
Each axis should be distinct and defined.

Example of a Figure



Conclusion

The collection, analysis and presentation of data are essential to developing knowledge of how a program serves its participants and stakeholders, meets its goals, and fulfils a role within the community. While the collection of data may seem daunting at first, it is the basis of all future effort to improve programs, determine strengths and weaknesses, and develop strategies for serving participants effectively.

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Appendix

Guide to Academic, Life Skills, and Occupational Skill Standards

Academic Standards

The Achieve Standards Database

A searchable database of state and international academic standards organized by grade level, subject, state, keyword, and topic.

http://www.achieve.org/achieve/achievestart.nsf/pages/abtclr

Education World

Lists academic standards according to subject and state. Subjects are subdivided by grade level.

http://www.education-world.com/standards/

Ohio Academic Content Standards

A listing of academic standards for the state of Ohio.

http://www.ode.state.oh.us/ca/ci/acs/default.htm

Life Skills

Life Skills for Vocational Education

Full text of important life skill standards for success in the workplace and life. The site includes curriculum and teaching strategies.

http://www.workshopsinc.com/manual/TOC.html

McRel

Listing of Life Work Standards broken down by grade level and type.

http://www.mcrel.org/compendium/Standard.asp?SubjectID=24

Next Step Career Specialists

Listing of the National Occupational Information Coordinating Committee Life Skills Competencies

http://www.nextstepinc.com/nex5060.asp

Occupational Standards and Competencies

CSI Net

Standards for career and technical education developed with existing academic standards by a consortium of seven schools.

http://www.csinetwork.org/

National Skills Standard Board

Contains a searchable clearinghouse of information on skill sets for occupations, certifications, and vocational education.

http://www.nssb.org/

O*Net

Lists skill sets associated with a large listing of careers. Searchable database.

http://online.onetcenter.org/main.html

SCANS (Secretary's Commission on Achieving Necessary Skills)

The Department of Labor listing of necessary competencies for schools and vocational programs. Contains printable guides, skills lists, and documents.

http://wdr.doleta.gov/SCANS/

Vocational Information Center

Contains articles on standards, tutorials, links, and information on specific skill sets. These include life skills, career skills, and information technology skill sets.

http://www.geocities.com/ResearchTriangle/Forum/7913/page3.html

U.S. Department of Education
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National Library of Education (NLE)
Educational Resources Information Center (ERIC)

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